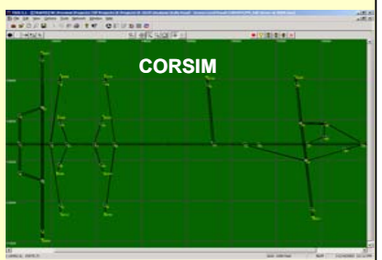
Plan Review

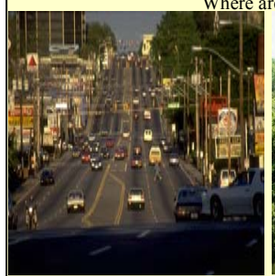
Plan Review provides engineering analysis, design and safety reviews of NCDOT Transportation Improvement Program (TIP) Projects and municipal projects using capacity analysis and traffic modeling. If future capacity problems are determined, Plan Review will make recommendations to correct or eliminate those deficiencies. Typical improvements range from providing additional travel lanes to upgrading an at-grade intersection to an interchange.

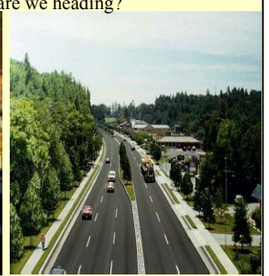
The intersection recommendations can include additional travel lanes, traffic signals, or roundabouts depending on the design year volumes.

Using various traffic analysis software, Plan Review analyzes the capacity of all TIP Projects from two lane roadways to major interchanges and makes recommendations for design improvements.



Where are we heading?





Municipal & School Transportation Assistance

MSTA provides traffic engineering assistance to North Carolina schools, state agencies and municipalities with a population of 50,000 or less without a traffic engineer on staff. The primary goal of the group is to help identify and solve traffic and transportation related problems through the comprehensive transportation studies. The study identifies problems, evaluates impacts and provides solutions that are both realistic and cost-effective. Some studies offered by the group are Intersection Safety, Municipal Parking, Traffic Circulation, Pedestrian Safety, Corridor Optimization, Access Management and School Zone Traffic Operations.

MSTA works to improve the safety and efficiency of school loading and unloading as well as the school zones in the vicinity of the school.

Helping municipalities to provide safer more efficient facilities for all modes of transportation; pedestrians, bicycles, and motorists. Study results can often be incorporated with other improvements helping to promote revitalization and economic growth incentives.

For more information, please contact us at:

Congestion Management & Signing Unit
Traffic Engineering & Safety Systems Branch
North Carolina Department of Transportation

Mail:
1561 Mail Service Center
Raleigh, NC 27699-1561

Address:
750 N. Greenfield Parkway
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www.ncdot.org/doh/preconstruct/traffic/congestion/

Fifth Revision:
Amanda Smith
January 2007

Congestion Management & Signing Unit

The mission of the Congestion Management & Signing (CMSU) Unit is to serve the public, enhance efficiency, safety and traffic operations utilizing alternative design solutions, and offer expert engineering support to other agencies by providing the most efficient and economical measures for congestion management and signing for North Carolina transportation systems.

Congestion Management & Signing Unit

The purpose of the Congestion Management and Signing Unit is to provide Traffic Engineering methods, technologies, training and state of the art devices to all Department of Transportation (DOT) Branches, other state agencies, contractors, utilities and developers, in a manner such that safe, environmentally sound, efficient and navigable facilities are the result, which enables all users to have a better quality of life.

The Congestion Management and Signing Unit is responsible for engineering plans, specifications, estimates and the successful installation of all traffic signs and congestion management measures. Inclusive in these responsibilities, we must ensure conformance with federal guidelines, the General Statutes of North Carolina and the Department's Fiscal Procedures.

Pedestal-mounted

Cantilever-mounted

Signing is responsible for various types of structure line drawings including overhead assemblies for static and dynamic signs (not shown).

Signing

The Signing Section is directly responsible for the planning, engineering, designing, and reviewing of a broad range of complex and politically sensitive signing preconstruction and construction issues in regards to statewide projects and standards. The design and development of signing projects and standards require following Federal and State guidelines and statutes to ensure the safety of the motoring public, analyzing roadway, structure, erosion control and traffic control plans, and using engineering principles and practices as applied to the safety of highway facilities. The signing plans dictate the placement of signs, types of signs, messages to be displayed, types of support to be used, the design of the supports on ground mounted signs, the lighting design and requirements for overhead signs, the design criteria for overhead sign structures, and the type of sheeting to be used on the signs.

The review and approval of these projects require long term planning and coordination within the Department and with other government agencies.

The Signing Section is also directly responsible for recommending the planning, engineering, designing, and responses for a broad range of complex and politically sensitive signing issues in regards to the following statewide signing programs:

1)The Logo Signing Program originated in 1982 by General Statute #136-89.56 and is regulated by Administrative Code Title 19A chapters 02E.0216 through 02E.0223;

2)The TODS (Tourist Oriented Directional Signs) Program, originated in 2001 by Senate Bill 206 followed by general Statute #136-140.15 through 136-140.19 and is regulated by Administrative Code Title 19A chapters 02E.1101 through 02E.1108;

3)The Agriculture Tourism Signing Program originated in 2001 by General Statute #106-22.5 and Program Guidelines established by NCDOT and the Department of Agriculture and Consumer Service (NCDOA&CS); and

An example of an Agriculture Tourism sign for Caldwell Vineyards

4)The River Basin Signing Program was established in 2001 by an enhancement Agreement between NCDOT and NCDENR that resulted from the Environmental Education Act and by General Statute #143-211 through 214 and #113-145.6.

Responsibilities include the oversight of 14 Division Program Coordinators staffed to the state's 14 Division offices and oversight of the financial status of the programs. The Section recommends changes to the Administrative Code (rules) for the Programs and following these changes through the rulemaking process. This involves coordination with the Safety and Emerging Issues Subcommittee of the BOT, the Attorney General's office, the Federal Highway Administration, our 14 Division Engineers and their staff, the Government Operations Committee, other Senators and Representatives, and citizens.

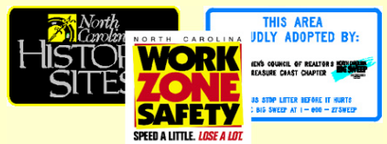
The Signing Section provides guidance in the area of traffic engineering expertise in reviewing and approving intricate sign practices to be incorporated in the Traffic Engineering Policies, Practices, and Legal Authority (TEPPL) manuals. The Section recommends and approves the coordination of various interdepartmental task forces and committees on establishing statewide consistency towards the implementation, operation, and maintenance of highway signs.

Work involves receiving traffic and engineering data and geographical information to compose sign practices based on travel information needs, traffic control methods, traffic safety and/or operation improvements, traffic management techniques, using engineering judgement to make decisions that affect traffic safety.

Work institutes database programs, corridor studies, evaluation reports, site visits, and a general knowledge of signing impacts to commercial and tourism industries. Work typically involves politically sensitive Signing issues.

The Signing Section reviews the development of special signing PS&E packages in accordance with Federal and State guidelines and statutes to ensure the safety of the motoring public. The signing plans dictate the placement and types of signs, messages to be displayed, types of support to be used, the design of the supports on ground mounted signs, the lighting design and requirements for overhead signs, the design criteria for overhead sign structures, and the type sheeting to be used on the signs. These special projects can be highly controversial especially in areas dealing with the perceptions and desires of private citizens and elected public officials.

Signing develops special sign designs for specific highway applications, special events, and slogans.



Access Management Group

Access Review examines the potential safety and capacity impacts that new or expanding traffic generators may have on the state roadway system and provides recommendations based on the analysis. Recommendations may include access restrictions, requiring the developer to construct additional travel lanes, internal traffic pattern operations or installing new traffic signals to minimize the traffic impact. The Group also review roundabout designs and operations for roundabouts that impact new development.

The primary responsibility of the Access Management Group is the review of major development access and its potential impact on the State of North Carolina's streets and highways. Interaction with both private development and field staff representatives is required to coordinate necessary geometric improvements as well as coordination with future TIP and thoroughfare improvements. All recommendations are coordinated with Division, District, and Regional Traffic Engineering staff, as well as local municipalities, if and when necessary.

In support of the NCDOT's "*Median Crossover Spacing Policy for North Carolina Streets and Highways,*" the Access Management Group is responsible for investigating requests for median breaks on existing and future divided facilities associated with new development. Typically, these requests involve major retail or industrial developments and complex issues with respect to traffic safety and operations.

In addition to the above-mentioned responsibilities, each month, the Access Management Group provides information to the Control-of-Access (C/A) and Right-of-Way (R/W) Abandonment Committee. In cooperation with the Federal Highway Administration (FHWA) and Managers of other North Carolina Department of Transportation (NCDOT) Branches, investigations are made into public and private sector requests for modification to the highway right-of-way. Each of these requests involve researching the site and collecting relevant traffic data.


Access Management Group analyzes development impacts to the State Highway System and access management issues within the State Highway System. Based on analysis, intersection improvements, traffic signal installation, or additional travel lanes are common recommendations to mitigate site traffic depending on the forecasted impact on the surrounding traffic volume.

Access Management offers assistance in access management issues, which controls and regulates the spacing and design of driveways, medians, median openings, traffic signals, and intersections.